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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,462	09/18/2000	Paul R. Mathewson	0313.MATH.CN1	4305

26986 7590 11/20/2003

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EXAMINER

LEWIS, KIM M

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 11/20/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/664,462

Applicant(s)

MATHEWSON, PAUL R.

Examiner

Kim M. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-17 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Response to Amendment

The amendment filed on 8/12/03 has been received and made of record in the application file wrapper. Claims 1, 20 and 21 have been amended as requested. Claims 1, 2 and 4-21 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 18, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by DE Patent No. 40 13 693 A1 ("Eisenberg").

As regards claim 1, Eisenberg discloses all features of the claim including an orthopedic brace, which provides active resistance to axial rotation and translation in a joint comprising at least one circumferentially spiraling, length-adjustable, longitudinally inelastic bracing member (21) having a proximal end for positioning on one side of a joint, a distal end for positioning on the other side of the joint long a longitudinal axis formed through the joint and a circumferentially spiraling distance extending between said proximal end and said distal end defining a circumference oriented about the joint from said proximal end to said distal end, active resistance to axial rotation and

translation of the joint being provided by a change in said circumference responsive to a change in the position of said proximal end relative to said distal end.

The applicant should note that the only structural feature claimed is the **at least one circumferentially spiraling, length-adjustable, longitudinally inelastic bracing member**, and that the device of Eisenberg is capable of functioning in a manner consistent with the device of the presently claimed invention.

As regards claim 2, note elongated bars (5,6), which read on applicants bracing support member.

As regards claims 18 and 19, Eisenberg discloses all features of the claim including a first bracing member support (7) and a second bracing member support (9) engaging opposite sides of a user's joint, and at least one circumferentially spiraling bracing member (21) having a first end and a second end **capable** of attachment to the first and second bracing member supports, respectively.

The applicant should note that the recitation "for attachment" is not a structural limitation. The applicant should further note that the first and second ends of the bracing member has a securement structure (see Fig. 1) connected thereto configured to maximize lateral vector forces acting on the first end thereof.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenberg in view of U.S. Patent No. 4,941,462 ("Lindberg").

As regards claim 4, Eisenberg fails to teach a sleeve. However, Lindberg discloses an orthopedic brace comprising a bracing support member (stabilizing splints 10 and 11), a soft undersleeve (1), and straps (4a, 4b, 5a, 5b) that connect the proximal and distal ends of the bracing members to the undersleeve. The undersleeve protects the user's leg from the stabilizing splint and also provides additional support to the leg.

In view of Lindberg, it would have been obvious to one having ordinary skill in the art to provide the brace of Eisenberg with a soft undersleeve in order to protect the user's leg from the rigid bracing support members, and to provide additional support to the user's leg.

Claim 20 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Eisenberg.

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As regards claim 20, Eisenberg discloses all steps of the method claim including providing an orthopedic brace, which actively resists axial rotation and translation in a joint, the brace comprises a bracing member support (5,6) and at least one circumferentially spiraling, length-adjustable, longitudinally inelastic bracing member (21) attached to the support. The support has a proximal end and a distal end for positioning on opposite sides along a longitudinal axis formed through the joint and a circumferentially spiraling distance extending between said proximal end and the distal ends defining a circumference oriented about the joint, positioning the brace about the joint, establishing the spiraling distance, selectively adjusting the spiraling distance by selectively adjusting the length of the bracing member between the proximal and distal end. Such selection provides active resistance to rotation and translation in the joint.

Eisenberg fails to explicitly teach a method for limiting axial rotation and translation in a joint. However, the method is inherently practiced by mere usage of the device.

Allowable Subject Matter

Claims 5-17 and 21 allowed.

The indicated allowability of claims 18-20 is withdrawn in view of the newly discovered reference(s) to Eisenberg. Rejections based on the newly cited reference(s) appear above

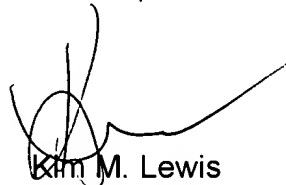
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim M. Lewis whose telephone number is

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703.308.1191. The examiner can normally be reached on Monday to Wednesday from 5:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 703.308.1957. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0858.



Kim M. Lewis
Primary Examiner
Art Unit 3761

kml
November 17, 2003